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14. ABSTRACT
Mexico suffers from a high underemployment rate of 25%, an extremely high poverty rate of 48%, a growing debt, low tax revenues, and low GDP growth. Without bettering this situation, Government of Mexico will likely to neither be able to foster prosperity, nor afford any public expenditures to improve security or the lot of the most unfortunate. The Government of Mexico should follow sound economic theory and historical precedent and adopt a simplified, low-rate, flat tax system in order to improve the quality of life of the Mexican people. Raising tax rates, as economic theory and recent history demonstrate, does not equate with raised tax revenues. Lowering and simplifying taxes, as economic theory and the Russian 2000 Tax Reform demonstrates, will result in increased GDP, employment, real wages, and tax revenues. The Russian example shows that from 1998 until 2005, tax revenues increased approximately 881% and GDP approximately 787% in nominal terms. Also, real wages doubled. Hours worked by primary breadwinners increased 5% to 7% and unemployment dropped from 11.9% to 7.6%. By adopting such tax reforms, the Government of Mexico will have better ability to handle the many pressing issues facing them today.

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<u>Mexican Tax Reform: Look to the Russian Example</u>

by

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Lieutenant Colonel, United States Marine Corps

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the
requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily
endorsed by the Naval War College or the Department of the Navy.

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Abstract

Mexican Tax Reform: Look to the Russian Example

Mexico suffers from a high underemployment rate of 25%, an extremely high poverty rate of 48%, a growing debt, low tax revenues, and low GDP growth. Without bettering this situation, the Government of Mexico will likely to neither be able to foster prosperity, nor afford any public expenditures to improve security or the lot of the most unfortunate. The Government of Mexico should follow sound economic theory and historical precedent and adopt a simplified, low-rate, flat tax system in order to improve the quality of life of the Mexican people. Raising tax rates, as economic theory and recent history demonstrate, does not equate with raised tax revenues. Lowering and simplifying taxes, as economic theory and the Russian 2000 Tax Reform demonstrates, will result in increased GDP, employment, real wages, and tax revenues. The Russian example shows that from 1998 until 2005, tax revenues increased approximately 881% and GDP approximately 787% in nominal terms. Also, real wages doubled. Hours worked by primary breadwinners increased 5% to 7% and unemployment dropped from 11.9% to 7.6%. By adopting such tax reforms, the Government of Mexico will have better ability to handle the many pressing issues facing them today.

<u>Introduction</u>

Mexico suffers from a high underemployment rate of 25%, an extremely high poverty rate of 48%, a growing debt, low tax revenues, and low GDP growth. Without bettering this situation Mexico will likely to be neither able to foster prosperity, nor afford any public expenditures to improve security or the lot of the most unfortunate.[1]

The Government of Mexico (GOM) has set the following strategic goals to alleviate these current conditions: "(1) *Achieve sustained economic growth at a higher rate than in the past several years, and increase employment in the formal sector*; (2) *Promote a competitive economy that offers quality goods and services at affordable prices*; (3) *Reduce extreme poverty, assuring equality of opportunity for all Mexicans to improve their quality of life and access to basic services"* and (4) *Enhance the State's ability to collect taxes.*[2] As seen below, the best way to meet these goals is to reform Mexico's tax system via a simplified, low-rate tax system.

Currently, Mexican businesses pay a burden of approximately 50.5% derived from a complex tax system designed to ensure tax payment through one taxation mechanism or an other.[3] Top individual earners pay a personal individual tax rate (PIT) of 30% and local and social security taxes that add from 1 to 3.5% more.[4] Coupled with a 16% VAT (Value Added Tax) for most consumables, the average high net worth individual faces a tax burden of around 45%.

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[1] For a breakdown of these details, see Table I in the Table Section below.

[2] United States Securities and Exchange Commission. *Annual Report of the United Mexican States. Document 18-K*. (31 December 2009). D-11.

[3] In 2011, the Mexican corporate tax rate is 30% of profits, an increase of 2% from the previous year so the 50.5% rate cited above is slightly lower than the current rate. See International Finance Corporation, *Report for the World Bank, December 2009*.

[4] *KPMG Individual Income Tax and Social Security Survey, 2011*. 7-8. Social Security payments bump this up to a bit more than 31%. Firms and persons in Mexico City, around 1/3 of the population and a greater portion of the tax revenues, pay an additional 2.5% income tax. Therefore, the real rate for top earners is slightly more than the stated 30% rate.

Further, the fact that the Mexican Tax Code is overly complicated is, unto itself, a further tax burden. Businesses and individuals have to spend excessive amounts of their time and effort just complying with complicated tax codes. This time and effort could otherwise be spent producing goods and services. Therefore, the more complex a tax code, the heavier the real tax burden. At least in part because of these high rates and difficulties in tax enforcement, the GOM faces a very low tax compliance rate. This problem is manifested by Mexico"s very large tax gap (taxes that should be paid by all tax payers but are not) of about 27% of potential tax revenues.[5] For purposes of comparison, the average European Union noncompliance number is around 13-14%, so Mexico is running about twice the average European Union tax gap rate. Most – about 85% -- of this estimated tax leakage stems from smaller businesses and self-employed individuals not paying their designated tax burden and from a robust underground economy[6] that avoids Mexico"s VAT.

This wide-spread non-compliance has significant deleterious effects on the rule of law, as once tax avoidance becomes the norm; consequently other informal (i.e. illicit) activities become more acceptable. Moreover, Mexico"s high taxes stunt economic growth and impede the optimal collection of tax revenues. Therefore, the GOM should institute a simplified, reduced-level tax code to increase GDP Growth, tax revenues, employment, and real wages. The adoption of this policy would enable the achievement of marked milestones in the National Development plan for the Mexican Economy.

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[5] Jeffrey Owens: "Tax Gap Measurement and Estimation: Does it have a role to play in modern tax administration practice?": *CIAT 44th General Assembly,* Montevideo, Uruguay 12-15 April 2010. As a comparison, the US runs around 16%.

[6] Scholars estimate the size of the underground or informal economy in Mexico to be between 30 and 40 percent and probably closer to 30 percent. Jose Brambilia Macias: "Modeling the Informal Economy in Mexico: A Structural Approach." *MPRA Paper No. 8504*. Ca"Foscari University, April 2008, 1. Accessed 30 October 2011. http://mpra.ub.uni-muenchen.de/8504/1/MPRA_paper_8504.pdf.

In order to buttress the above thesis, this paper will use a combination of economic theory and the case study method. Where possible, this paper will use layman"s economic parlance but will, in select instances, use basic economic formulae and terms to demonstrate further key and relatively straightforward points of the argument. While there certainly is merit in looking at other GOM taxation aspects (e.g. VAT), the scope of this paper is limited to looking at corporate and personal income taxes, keeping in mind that the simplification of income taxes should eliminate most or all other aspects of GOM taxation.

Counterargument: Opposition Efforts to Increase Tax Revenues via Increased Taxation

The Partido Revolucionario Institutcional (PRI), a left of center political party that, although not in a governing majority, holds the most seats in the Mexican Legislature, currently has a proposal to increase the overall tax burden for business and high wage earners.[7] Their intent, beyond the political gesture to their left-of-center base, is to increase tax revenues.

A prominent economist, Austan Goolsbee, argues that for labor productivity, tax rates have little effect on the amount of productivity that labor produces. He further argues that, at the other end of the income spectrum, high earners are going to work no matter what.[8] If this were the case, then raising the rate of taxation would only affect the productivity of a certain portion of the middle class population. The rest of the population, rich and poor, would not be affected. Because of this limited effect, the increased taxes would not negatively affect the total amount of tax returns or economic growth.

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[7] Ernst and Young. "Comprehensive Tax Reform in Mexico: Unfolding Plot on the Road to 2012 Elections." T Magazine. April 2011. Accessed 23 October 2011. http://tmagazine.ey.com/comprehensive-tax-reform-in-mexico/

[8] Austan Goolsbee "Evidence on the High-Income Laffer Curve from Six Decades of Tax Reforms". *Brookings Papers on Economic Activity*, No. 2. (1999). Accessed 23 October 2011. http://www.jstor.org/pss/2534678. 1–44. Goolsbee cites extensive studies on the labor aspect and goes into some detail on the CEO salaries in the US from the 1920s to the 1980s.

The problem with this argument is that it assumes lack of mobility on the part of the labor supply and an inability for high net worth persons to obscure their income. Moreover, it discounts firms‟ and persons‟ lessened willingness to produce further value at higher marginal tax rates. When governments raise taxes, they affect behavior, as people will strive to avoid the effect of these tax increases. They will work less or find some way to shelter their efforts from taxation. John Maynard Keynes noted: "taxation may be so high as to defeat its object, and ... a reduction of taxation will run a better chance than an increase of balancing the budget."[9]

In Mexico‟s case, one can observe the relative ease of tax avoidance in the relatively high tax gap percentage of about 27%, meaning that on average, firms and individuals pay 27% less tax than they would if Mexico had perfect compliance with tax laws. This high percentage is indicative of structural deficiencies in the tax codes, as they apply to the Mexican economy and culture. Specifically, these deficiencies are a combination of high tax rates and complicated tax codes not well suited to an economy with such a large informal sector.

The near perfect substitution[10] of non-taxed labor in the Mexican informal sector renders the Goolsbee argument untenable due to the ease that a Mexican worker could move into the non-taxed informal sector. Moreover, the higher income types are markedly adept at avoiding taxation via legal tax shelters or deferment. Thus, raising taxes in Mexico, with its porous tax efficiency, will have an even greater negative effect on tax revenues than it would have in a more tax abiding society.[11] Conversely, because of the porous system, lowering taxes and making the tax code simpler to follow will likely have a greater effect than it would in a tax abiding nation

[9] Thomas Sowell *Basic Economics: A Common Sense Guide to the Economy.* Basic Books; Fourth Edition. 451.

[10] Perfect substitution means that a worker can work in the informal or formal sector very easily.

[11] Clemens Fuest and Nadine Riedel. "Tax evasion, tax avoidance and tax expenditures in developing countries: A review of the literature." (Oxford University Centre for Business Taxation, June 19th, 2009), 9. http://ec.europa.eu/development/services/events/tax_development/docs/td_evasion_riedel_fuest.pdf

as there is more lost tax compliance to make up. Therefore, raising taxes in Mexico will not provide the GOM with increased tax revenues.

Solution: Reduced Tax Rates and a Simplified Tax Code

There is a solution to Mexico's tax revenue and other economic concerns. This solution is fundamental tax reform. To demonstrate that the GOM should institute a simplified, reduced-level tax code to increase significantly both GDP and, via increased tax compliance, tax revenues, this paper will look at tax reform from two perspectives. First, this paper will review what economic theory indicates relative to taxation policies and what one can expect from adopting a simplified, reduced-level tax code. After this analysis and its conclusions, this discussion will delve into a case study wherein Russia adopted the tax reform measures discussed herein and will then analyze the real output of these reforms. Through these two perspectives, this paper will produce a very solid illustration of just how successful a similar tax reform could be in Mexico.

Economic Theory and Taxation

Economic theory, as it applies to taxation, indicates that persons will strive to avoid taxes when possible. This avoidance manifests in two ways. As marginal tax rates go up, each unit of effort exerted by that person returns less of a reward. At some point, a person will reach equilibrium where the diminishing return on their effort does not warrant further expenditure of effort. Therefore, they find more value in leisure, thereby halting productivity and concurrent taxation. The lost productivity and taxation, is called the "dead weight loss."[12]

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[12] Dead weight loss is also known as excess burden. For more information on this subject, see Martin Feldstein, "The effect of marginal tax rates on taxable income: A panel study of the 1986 Tax Reform Act." *Journal*

Paralleling this concept, it can be seen that producers are incentivized to produce more with less taxation as they gain more per unit of effort expended. They get more return from what they produce so they are more likely to continue what they are producing. However, at some point they will reach an equilibrium point. But, with less taxation and therefore more return to the producers, this equilibrium point will be further out in time and effort expended by the producers. Therefore, there will be less dead weight loss. Lower taxes, therefore, will lead to increased productivity and, in terms of national economies, higher GDPs.

The second aspect of tax avoidance is found in that some people may deliberately falsify or hide their incomes to avoid taxes. The tax revenue lost here is called the tax gap.[13] This group of potential tax avoiders, whom this paper will call ambivalents, will make a decision to pay or not to pay taxes.

All things[14] being equal, ambivalents make their decision to pay based on two factors: first, the tax rate and its relative burden and, second, the perceived chance and cost of being caught by the tax authorities as a tax avoider. For purposes of this discussion, it is necessary to understand the logic flow of the informed ambivalent, as demonstrated in Figure 1.

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of Political Economy Vol. 103 No. 3, (Jun. 1995) 551–572 and "Tax avoidance and the deadweight loss of the income tax." Review of Economics and Statistics Vol. 4. No. 81. (Nov. 1999). 674–680.
    [13] For further information on the Tax Gap, see http://www.taxpolicycenter.org/briefing-book/background/tax-gap/what-is.cfm accessed 3 October 2011.
        [14] "Things" here meaning culture, attitudes toward the government, economic prosperity, and so forth.

Figure 1: Tax Payment Choice Logic

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┌──────────┐     ┌──────────────┐          ┌────────┐          ┌──────────────┐
│  Learn   │     │Decision Point:│         │  Pay   │  ──────▶ │ Manifest Cost to │
│   Tax    │ ──▶ │Pay Taxes or Not│  ──┬──▶│ Taxes  │          │   Tax Payer   │
│   Rate   │     │  Pay Taxes    │    │    └────────┘          └──────────────┘
└──────────┘     └──────────────┘     │                              ▲
                                       │    ┌────────┐          ┌──────────────┐
                                       └──▶ │  Not   │  ──────▶ │  Observed    │
                                            │  Pay   │          └──────────────┘
                                            │ Taxes  │              
                                            └────────┘          ┌──────────────┐
                                                      ──────▶   │    Not       │
                                                                │  Observed    │
                                                                └──────────────┘
                                                                      │
                                                                      ▼
                                                                ┌──────────────┐
                                                                │ No Manifest  │
                                                                │ Cost to Tax  │
                                                                │    Payer     │
                                                                └──────────────┘
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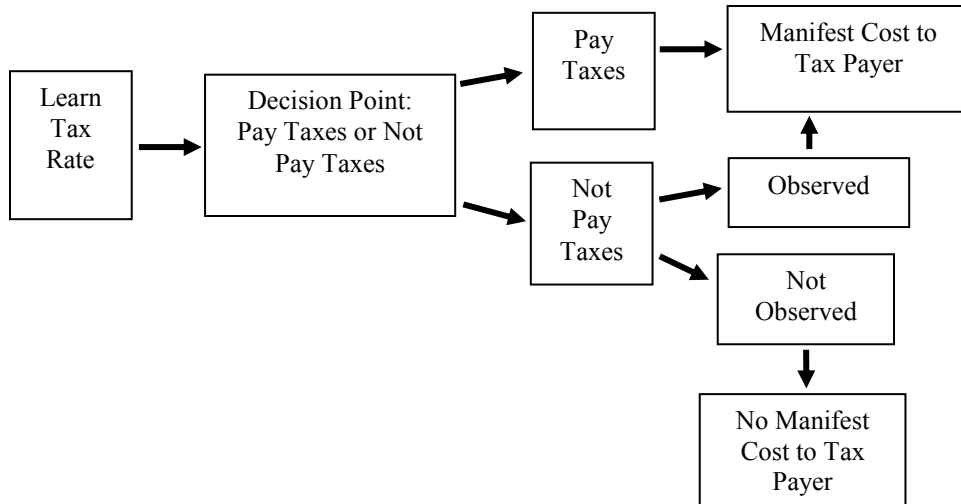
This tax logic choice diagram demonstrates that the knowledge of the tax rate is the foremost, in terms of time flow, consideration. That is, the ambivalent looks at the tax rate before even considering cheating on taxes. The tax rate is at a known level before he reaches a decision point to cheat or not to cheat. Further, he will not know the chances of being observed as a tax cheat. People are generally risk averse.[15] Risk aversion as a human population (not individual) characteristic is well encapsulated in the truism that known risky stock portfolios demand higher returns relative to known low risk portfolios. Therefore, the relative tax rate is the dominating driver of the two factors, given the caveat that the observation and subsequent enforcement potential must be a real potential. In short, a potential tax cheat will only cheat if the tax rate is high enough to overcome his risk aversion.[16]

Similarly, the first input toward increased tax compliance is knowledge of an acceptable tax rate. Because the first decision is to cheat or not cheat, if the ambivilents does not cheat, no

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[15] For a comprehensive study on this matter see: Douglas W Blackburn and Andrey Ukhov "Individual vs. Aggregate Preferences: The Case of a Small Fish in a Big Pond." Risk Theory Society. (October, 2006). Accessed October, 23 2011. http://www.aria.org/rts/proceedings/2007/ukhov.pdf.

[16] For a comprehensive paper on this tax evasion decision making process see: Luigi Alberto Franzoni, "Tax Evasion and Tax Compliance." University of Bologna, Italy, (1999). Accessed 20 October 2011. http://encyclo.findlaw.com/6020book.pdf.

other factor matters. So the decision to cheat, in large part based on the tax rate, trumps other

factors as the other factors do not enter the equation.[17]

To further understand an ambivilent‟s decision, it is important to think back to the law of

supply and demand. Because of the law of supply and demand, as the price of a particular good

goes up – in this case paying the tax – the less demand (in this case, willingness to pay) for that

particular good goes down. Thus, an ambivalent is less likely to pay a higher tax. This

willingness to pay is termed *elasticity.*[18]

It should be remembered, too, that for the ambivalent, the tax evasion process itself is not

without cost. For examples: profits must be hidden, a second set of books must be kept, alternate

means of payment for goods and services must be designed and implemented, and trade partners

must be encouraged to keep silent, and so forth. Therefore, there is a taxation level that, if low

enough, will be less of a burden for an ambivalent to pay than the cost that ambivalent would

incur if they elected to cheat on taxes. Therefore, the lower the tax rate, the less likelihood that a

person will cheat on taxes, assuming at least some risk and cost from being caught.

Therefore, the ideal tax rate, as far as compliance goes, will be just under the equilibrium

point of where the cost of paying taxes meets the aggregate cost measured by the cost of

avoidance of taxes and the multiple of the perceived risk of being caught times the anticipated

cost of being caught:

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[17] Even if a secondary factor (e.g. how much to cheat), comes into effect, this first input status is important because even if another effect has an equal (or perhaps greater influence) on the ambivalent population decision, the first factor dominates. Witness: two factors have effects on a population both with an effect with a value of 0.1, meaning that 10 percent of the target population will be affected. The first effect has a net return of 0.1 while the second effect, because the target population has already shrunk to 0.9, has effect of only 0.09. Thus, the first factor dominates in a mathematical as well as a logical sense.

[18] Mathematically, the formula for returns for Government tax revenues is TRev= (TI – NTI) * TRate where TRev is Tax Revenue, TI is Taxable Income, NTI is Non-Taxable Income and (TI + NTI) is Total Income, taxable and non –taxable, and TRate = the Tax Rate.   (TI – NTI) can best be thought of as the taxpayer‟s willingness to pay the tax. Therefore, the higher the TI and the lower NTI, the higher the net tax returns, assuming a consistent tax rate.

$$T_{ideal} < C_{Avoidance} + (Risk_{Perceived} * C_{Caught})$$

Note, that in Mexico with its high tax gap, the cost of tax avoidance tends to be less than typical as there are many willing and interrelated partners involved in the hiding of incomes in the informal sector.[19] This means that the optimal taxation level will also be less. Conversely, as more people make the conscious decision to pay their taxes, these complicit relationships erode and it becomes more expensive to hide income. Therefore, there is an incrementally accelerating tax compliance benefit to lowering the tax rate and thereby the GOM can build an interdependent, tax compliant network.

As taxation returns are subject to elasticity, a sound tax policy would be one that has low enough rates to encourage both further productivity and compliance by taxpayers. However, this rate must be balanced, as a rate of zero percent would yield both one hundred percent compliance and zero net pesos returns. This balanced point of optimal tax revenue is found where there is a maximum product of tax compliance multiplied by the tax rate. Here is the optimal tax revenue point as tax revenues are maximized due to an ideal willingness to pay the tax multiplied by an ideal tax rate. The precise location as to where this ideal point lays is detailed in a concept known as the Laffer Curve.[20]

This ideal long-term point tends to be variable due to the dynamic nature of economics and its location vis-à-vis Mexico is beyond the scope of this paper. It should be emphasized, too, that the optimal tax revenue at a particular point in time does not typically equal optimum tax revenue over a longer time. This condition is because the tax rate that returns the maximum tax revenue at a particular point in time is typically higher than the rate required for optimal

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[19] The large size of the informal sector makes this readily possible. Macias. 4.

[20] The Optimal point for taxation is reflected in the optimal tax revenue pot: $Tax_{Optimal\ Revenue} = (Tax_{Optimal\ Compliance} * Tax_{Optimal\ Rate})$. For a brief overview of the Laffer Curve concept, see David Storobin, "Eliminate Capital Gains Taxes Now - for the starving children." *Global Politician*. Accessed 28 October, 2011. http://globalpolitician.com/22755-economics.

growth of the economy over time. By engaging a short-term optimal tax revenue point, optimal

tax returns overtime and economic welfare can be jeopardized. For Mexico, the tax code should

be simplified and the tax rate greatly reduced. The exact rate structure should be determined via

tax reform studies and modeling, subject to adjustments after implementation.

This paper has not yet offered perspectives on tax enforcement and its effect on tax

revenues. Tax enforcement does not come without a cost. There are a limited number of tax

auditors and each auditor has limited time to conduct their tax audits. Moreover, not all subjects

of tax audits are tax cheats and not all audits of cheats will succeed in catching cheats. Even

assuming a perfect rate of auditing, the GOM cannot audit and catch every tax cheat and will

incur a cost in this effort. Further, many Mexican businesses are too small or too mobile to even

be auditable. There may be nothing to audit or the potential return from a successful audit may

be less than the cost of the audit itself. Yet, because the fact that the potential for tax

enforcement is a significant driver for some potential tax cheats, some measure of tax

enforcement must exist.   But, due to the numerous and ambiguous variables involved, without a

very comprehensive research effort that would be far beyond the scope of this paper, economic

theory by itself cannot offer reliable predictions as to whether or not increased tax enforcement

will have a net positive effect on tax revenues.   Therefore, this paper will defer to the subsequent

Russian Case Study for perspectives on tax enforcement.

In addition, tax payers are more likely to pay a tax if they construe it as fair.[21] Therefore,

a flat tax, which is easily understandable and universally applicable, is ascertainable as fairer

than a complicated system where the tax payer who can afford to hire an army of accountants has

a decided advantage. In addition, cost of both tax collection efforts and tax payment efforts will

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[21] Bruce Bartlett, "The Beauty of the Flat Tax; It"s Fair and it Works." *National Review Online.* (March 2, 2005). Accessed October 21 2011. http://old.nationalreview.com/nrof_bartlett/bartlett200503020824.asp.

go down in a simplified, flat tax system. With a simplified system, a taxpayer has to spend less of his time away from productive endeavors preparing and filing his taxes. Similarly, tax collection officials will have an easier job, thereby saving money and effort on the collection side as well.

In summary, economics theory indicates that that reducing taxes and simplifying tax codes will encourage payment of taxes. Moreover, if the tax rate is at or near the optimal point, both tax revenues and economic growth can be increased. Therefore, this paper advocates that the GOM should significantly lower its taxes and simplify its tax code with a flat tax.

Case Study: Russia

This paper will now proceed to discuss the Russian Tax Reform of 2000 and provide evidence that Mexico should adopt a similar solution to its similar problems. Russia is a particularly good case study to review, as it shares a large informal sector, a sizable tax gap, and a large petroleum sector.

Russia in the 1990s was facing an economic crisis. Tax revenues were plummeting, GDP shrinking, and unemployment and deficits were rising.[22] The Russian government repeatedly tried to raise tax revenues by tax increases and tax enforcement. The Russian government and the Russian oil companies (among others) were locked in an iterative battle wherein the high taxes and a concerted tax enforcement effort yielded negative GDP growth and reduced tax revenues. Parent companies created offshore subsidiaries to pay their employees, arranged for insurance companies to pay their employees under the guise of large regular payouts, or pay bank fees for their employees so that their employees could net higher interest returns. Despite

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[22] See Tables III and IV/IVa below.

increased enforcement efforts, fewer than 8% of tax police cases ever reached the courts.[23]

Moreover, due to the high taxes, the Russian economy shrank in real terms until tax reform was

enacted in 2000/2001.[24] In short, Russia's heightened taxes and enhanced tax enforcement

yielded negative tax revenues and GDP growth.

In 1999, in its first tentative measure toward comprehensive tax reform, Russia dropped

its top Personal Income Rate (PIT) from 45 to 30 percent and, in return, 2000 real PIT returns

grew from negative 5.9 percent growth[25] to 8.1 percent positive growth. See Tables III and

IV/IVa for further positive benefits on GDP, total tax revenues, the deficit, and unemployment.

No other macro-economic factors substantively changed during this period. Therefore, it stands

that these positive economic results are due in large part to the dropping of the PIT rate from 45

to 30 percent.

Building on this causal correlation between reduced PIT rates and tax revenues,

employment, and GDP growth, Russia became the first large country to adopt a simplified flat

tax in January of 2001. The Tax Code of 2001 replaced the conventional progressive rate

structure with a flat tax rate of 13 percent PIT.[26] Additionally, corporate profit taxes adopted a

scale wherein the greater the profit made, the lesser the tax rate. This tax system was designed to

incentivize the productiveness of corporations by providing them with a greater and greater share

of their effort as they made more and more profit. Over the next year, the Russian economy grew

at nearly five percent and the tax revenues, in real terms, increased by over 25%. In total, from

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[23] Thane Gustafson, *Capitalism Russian-style*. (Cambridge University Press, 1999). 201.
[24] Pauline Jones Luong, and Erika Weinthal, "Contra Coercion: Russian Tax Reform, Exogenous Shocks and Negotiated Institutional Change."*American Political Review*. Vol. 98, No 1. Accessed 28 October, 2011. http://www.brown.edu/Departments/Political_Science/OLD/pauline/APSR%20February%202004.pdf141-142; See also Gustafson, 196-205; See also Table III in the Table Section below, noting the increase in tax returns associate with the lessened Personal Income Tax (PIT) rate. Note, that there was a slight increase in GDP growth in 1998.
[25] Negative GDP growth is GDP shrinkage. See Table III; Columns 1999-2000.
[26] Table II.

1998 until 2005, tax revenues increased approximately 881% in nominal terms.[27] Clearly, Russian tax revenues expanded dramatically after the introduction of a lower, simplified tax rate.[28] There were no other macroeconomic changes in the Russian economy separate from the change in tax policy. Therefore, it is logical to conclude that these improvements are linked to the tax reforms.

However, it should be remembered that tax revenues are, in part, a reflection of tax need and are not unto themselves an optimal indicator of economic health. Therefore, this paper will look at GDP and GDP Growth as better indicators of prosperity. After the Tax Reforms of 2001, real GDP growth over the next five years averaged 6.12%. In the five years before the tax reform of 2000 and the adoption of flat tax in 2001, real GDP growth averaged negative 1.26%. In total, from 1998 until 2005, Russian GDP increased approximately 787% in nominal terms.[29] This one statistic is the greatest single measure of the success of Russia's tax reform efforts and gives manifest evidence that the GOM should adopt a similar, low-rate flat tax system.

These tax reforms also had large positive effects on voluntary tax compliance, thereby reducing tax evasion. Comparing consumption to reported earnings (a relatively sound way of estimating tax gaps), the Russian 2001 tax reforms show an approximate 10.5% increase in reported income relative to consumption. The conclusion is that a flat rate income tax can lead to significant reductions in tax evasion due to better reporting and increased compliance.[30]

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[27] Table III. See "Column 2001" and track tax revenues from 2001 until 2005.
[28] See Tables II, III, and IV/IVa for a specification of the rates and their positive effect on employment, GDP growth, deficit, and both PIT and corporate tax revenues.
[29] Table III.
[30] Marco Maffezzoli, "Tax Evasion under Market Incompleteness. *Working Paper Series.* Università Commerciale "L. Bocconi" and IGIER (September 5th, 2011). Accessed 28 October, 2011. http://www.igier.unibocconi.it/files/378.pdf; See also Y. J. Gorodnichenko, Jorge Martinez-Vazquez and K. S. Peter, "Myth and Reality of Flat Tax Reform: Micro Estimates of Tax Evasion Response and Welfare Effects in Russia." National Bureau of Economic Research. *Working Paper 13719.* (Jan, 2008). 504–54. Accessed 23 October 2011. http://cid.bcrp.gob.pe/biblio/Papers/NBER/2008/enero/w13719.pdf; also A. Ivanova, M. Keen, and A. Klemm, "The

Therefore, Russia reduced its tax gap by introducing a simple tax code bearing a relatively low tax burden. If Mexico were to adopt such a measure and experience similar results, Mexico would drop its tax gap by approximately 2.8%, to approximately 24.2%.[31] Such a drop in a tax gap indicates a greater adherence to the rule of law and, therefrom, lasting increased tax revenues.

Per employment hours, part of labor supply, if a person can earn more money per hour worked, they will do so. In the Russian case, primary bread winners (males) increased their hours worked by somewhere between 5.2 and 7.3%.[32] Therefore, there is evidence that by lowering taxes, Russia increased the amount of hours that workers were able to work, lending to increased prosperity if real wage rates remain the same or increase.

Per overall employment rates, the other portion of the labor supply, the reduction in Russian taxes greatly reduced the unemployment rate.[33] There is very likely a causal association with the improved Russian employment numbers with the decrease in tax rates as they are contemporaneous and follow expected theoretical predictions.

There is also a marked increase in real wages. From 1998 to 2005, real wages doubled.[34] This means that in addition to more Russian workers being employed and more workers working more hours, these wage earners are earning more per hour in real terms. Thus, real prosperity increased as wage earners made more income in real terms. Similarly, as high wage earners and corporations retained a higher portion of their earnings due to the reduced rate tax code, prosperity increased for the Russian population and economy in aggregate.

Russian „Flat Tax" Reform." International Monetary Fund. (Jan, 2005). 397–444. Accessed 28 October, 2011. http://www.imf.org/external/pubs/ft/wp/2005/wp0516.pdf.

[31] Mexico's current tax gap is 27%. A 10.5% reduction would yield a tax gap of approximately 24.2%.

[32] Denvil Duncan, "Does Labor Supply Respond to a Flat Tax? Evidence from the Russian Tax Reform." Georgia State University, *Working Paper.* June 2, 2009. 23. Accessed 23 October 2011. http://aysps.gsu.edu/usery/files/09-6-2_Peter-WPFlatTaxReformandLaborSupply.pdf.

[33] Tables IV and IVa.

[34] Duncan, "Does Labor Supply Respond to a Flat Tax? Evidence from the Russian Tax Reform." 40.

<u>Conclusion and Recommendations</u>

The GOM should institute a simplified, reduced-level tax code to increase GDP growth. The exact rate of taxation should be researched and modeled, using recent historical examples as a starting point. From this increased GDP, the GOM can increase its tax revenues. What is more, sound economic theory and the Russian case study shows us that overall prosperity as measured by GDP growth, real wages, and employment, will increase.

Mexico will reach some its delineated strategic economic goals in the following ways:

(1) "*Achieve sustained economic growth at a higher rate than in the past several years, and increase employment in the formal sector*." As demonstrated above, with reduced and simplified taxes, the GDP will grow and a percentage of workers and businesses will migrate to the formal sector due to its more bearable taxation level.

(2) "*Promote a competitive economy that offers quality goods and services at affordable prices*." Mexican businesses will be more able to produce quality products as open market competition and government oversight – more possible after firms have moved into the formal sector – will both help ensure that consumers receive the best products for their money. Further, as market efficiencies increase, prices will drop, making goods more affordable. In addition, with increased employment, increased hours, and increased real wages, real incomes rise. With increased real incomes, prices for goods relative to income drop, thereby providing Mexican consumers with more disposable income.

(3) "*Reduce extreme poverty, assuring equality of opportunity for all Mexicans to improve their quality of life and access to basic services.*" As employment and real wages increase, poverty decreases. Moreover, for those in exigent need, the GOM will have a larger tax receipt to spend as it sees fit to help reduce poverty of those unable to enter the work force.

(4) *Enhance the State's ability to collect taxes.* " As detailed above, a flat, low-rate tax reform will increase the GOM's ability to collect taxes due to increased tax compliance and increased taxable GDP. Moreover, with a simplified tax system comes a simplified tax collection system, making the collection of taxes less costly and allowing monies now spent on tax collection to be spent elsewhere post-reform.

There is value to tax enforcement. Some enforcement mechanism needs to be present to give the potential for a penalty and thereby serve as an incentive for compliance with taxation regulations. However, this paper argues that the GOM will find it more economical to focus on the taxpayers" risk preferences. Risk preference, as it is market based[35], is a better solution than enhanced enforcement as there is a markedly diminishing return on enforcement efforts. Further, a heightened enforcement program might, by itself, make potential taxpayers more reluctant to leave the informal sector and enter the tax-paying formal sector. This potential is a considerable factor in Mexico given the size of the informal economy.[36] Therefore, rather than via enhanced enforcement, the GOM will achieve optimal tax revenues by incentivizing tax compliance through reduced taxation rates and simplifying the tax code.

The GOM should follow sound economic theory and historical precedent and adopt a simplified, low-rate, flat tax system in order to improve the quality of life of the Mexican people. Raising tax rates, as economic theory and recent history demonstrate, does not equate with raised tax revenues. Conversely, lowering and simplifying taxes, as economic theory and the Russian 2000 Tax Reform manifestly demonstrates, will result in increased GDP, employment, real wages, and tax revenues and will give the Mexican people and government the ability to better handle the many pressing issues facing them today.

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[35] "Market based" here means that each tax payer will make their own decision based on their own risk preference, vice some outside force attempting to mandate their behavior.
[36] Macias. 4.

TABLES

Table I: Mexico Economic Profile 2010[37]				
GDP (2010 est)	**GDP Growth (Avg 2008-10)**	**Unemployment (2010)**	**Underemployment (2010 est)**	**Poverty rate (Food Based 2008)**
$1.039 Trillion	0.30%	5.50%	25%	48%
Budget Revenue (2010)	**Budget Expenditure (2010)**	**Tax Revenue (2010)**	**Budget deficit of GDP (2010)**	**Public debt (2010)**
$234.3 billion	$263.8 billion	22.5% of GDP	2.80%	36.8% of GDP (2010

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[37] Source: CIA World Fact book. See https://www.cia.gov/library/publications/the-world-factbook/geos/mx.html

Table II: The Russian Tax Reform Rates[38]						
	Before Tax Reform (2000)			After Tax Reform (2001)		
	Personal Income Tax (PIT)	Unified Social Tax		PIT	Unified Social Tax	
Gross Yearly Income (rubles)		Employee	Employer		Employee	Employer
<3,168	0			0		35.6
3,168 to 4,800	12					
4,800 to 50,000		1	38.5		0	
50,000 to 150,000	20			13		20
150,000 to 600,000	30					
> 600,000						2*

*5% until 2002.

In 2000, on average, one United States Dollar equaled twenty-seven Russian Rubles. Also note that before 2000, the top Russian PIT rate was 45%.

[38] See Fabian Slonimczyky, "The Effect of Taxation on Informal Employment: Evidence from the Russian Flat Tax Reform." (June 1, 2011). Accessed 28 October, 2011. http://www.iza.org/conference_files/InfoETE2011/slonimczyk_f6969.pdf. 20.

Table III: The Russian Economy Before and After the Tax Reform[39]

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Nominal GDP, Billions of Rubles	1585.0	2200.2	2585.9	2741	4767	7302	9041	10830.5	13243.2	16966.4	21598.0
Real growth, %	-4.1	-3.5	0.8	-4.9	5.4	9.0	5.0	4.7	7.3	7.2	6.4
Budget Deficit(-) Billions of Rubles	-49.1	-94.2	-127.9	-155	-44	138	265	97	174	760	1759
Nominal Tax Rev. Billions of Rubles	353.3	464.3	593.4	524.8	891.4	1481.9	1955.8	2331.0	2671.9	3299.6	4627.2
Real Growth, %	…..	-9.9	11.1	-25.4	-1.5	20.7	13.3	3.0	0.6	4.7	15.7
Nominal Tax Rev from Personal Income Tax, (PIT) Billions of Rubles	36.7	56.7	75.6	72.2	117.1	174.3	255.5	357.8	455.3	574.2	706.6
Real growth, %	….	6.0	15.9	-19.4	-5.9	8.1	25.8	21.1	11.7	6.9	1.6
% of tax revenues	10.4	12.2	12.7	13.8	13.1	11.8	13.1	15.3	17.0	17.4	15.3
Top Marginal PIT Rate	30	35	35	35	**45**	**30**	**13**	**13**	**13**	**13**	**13**

Initial Tax Reform, top PIT Rate dropped from 45 to 30%

The Russian Flat tax Reform. For corporate tax rates, see Table II above.

[39]Source: Y.J. Gorodnichenko, Jorge Martinez-Vazquez, and K. S. Peter "Myth and Reality of Flat Tax Reform: Micro Estimates of Tax Evasion Response and Welfare Effects in Russia." National Bureau of Economic Research. *Working Paper 13719*. (January, 2008): 41. Accessed 23 October 2011. .http://cid.bcrp.gob.pe/biblio/Papers/NBER/2008/enero/w13719.pdf

Table IV: Russian Unemployment Rate[40]		
Year	Unemployment Rate	% Change From Unemployment Rate From Prior Year
1993	5.285	10.84%
1994	7.233	36.86%
1995	8.534	17.99%
1996	9.606	12.56%
1997	10.819	12.63%
1998	11.889	9.89%
1999	13.001	9.35%
2000	10.591	-18.54%
2001	8.939	-15.60%
2002	8	-10.50%
2003	8.6	7.50%
2004	8.2	-4.65%
2005	7.6	-7.32%
2006	7.2	-5.26%
2007	6.1	-15.28%

Table IVa Russian Unemployment Rate Displayed Graphically
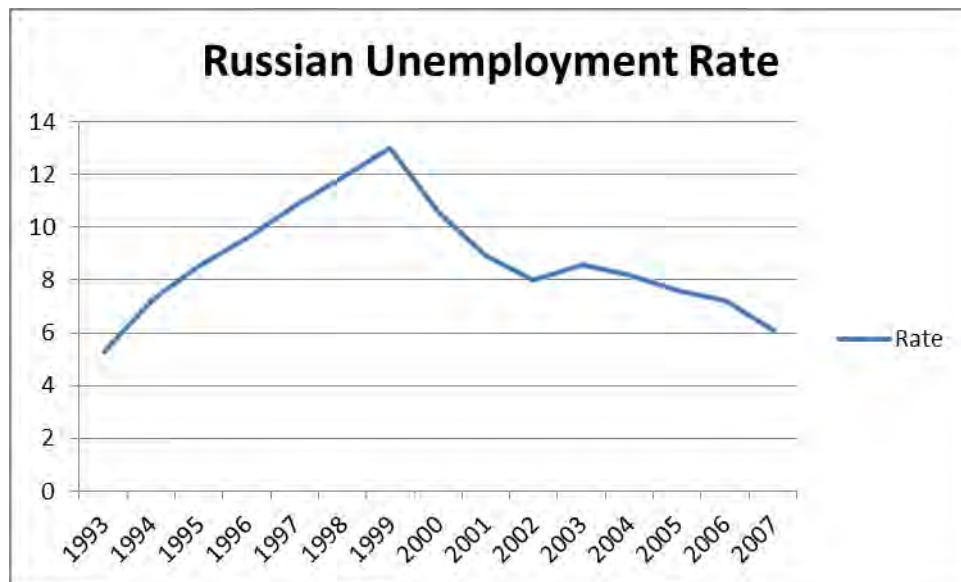
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C&ei=I2arTsv2N5D_sQK48un0Dg&usg=AFQjCNEwsL1ZotH7f-
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